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                 "Ask CAS" for self-help around the clock
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        APR 04
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                STN AnaVist $500 visualization usage credit offered
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                CA/CAplus enhanced with 1900-1906 U.S. patent records
NEWS
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NEWS
        MAY 11
                KOREAPAT updates resume
NEWS
     7
        MAY 19
                Derwent World Patents Index to be reloaded and enhanced
NEWS
        MAY 30
                IPC 8 Rolled-up Core codes added to CA/CAplus and
                 USPATFULL/USPAT2
NEWS 9
        MAY 30
                The F-Term thesaurus is now available in CA/CAplus
NEWS 10
        JUN 02
                The first reclassification of IPC codes now complete in
                 INPADOC
NEWS 11
                TULSA/TULSA2 reloaded and enhanced with new search and
        JUN 26
                 and display fields
NEWS 12
        JUN 28
                Price changes in full-text patent databases EPFULL and PCTFULL
NEWS 13
        JUl 07
                Coverage of Research Disclosure reinstated in DWPI
NEWS 14
        JUl 11
                CHEMSAFE reloaded and enhanced
NEWS 15 JUL 14 FSTA enhanced with Japanese patents
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NEWS EXPRESS JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.

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CAS ONLINE PRINTOUT FILE COVERS 1907 - 18 Jul 2006 VOL 145 ISS 4 FILE LAST UPDATED: 17 Jul 2006 (20060717/ED) Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at: http://www.cas.org/infopolicy.html => s 125 L2 L3 => d his (FILE 'HOME' ENTERED AT 07:01:47 ON 18 JUL 2006) FILE 'REGISTRY' ENTERED AT 07:02:07 ON 18 JUL 2006 L1 STRUCTURE UPLOADED L22 S L1 FUL FILE 'CAPLUS' ENTERED AT 07:03:35 ON 18 JUL 2006 5 S L2 L3=> d l1 L1 HAS NO ANSWERS L1*** STRUCTURE DIAGRAM IS NOT AVAILABLE *** Structure attributes must be viewed using STN Express query preparation. => d bib abs hitstr 1-5 L3 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN 2004:376050 CAPLUS AN 141:184918 DN Cinnamic acid based thiazolidinediones inhibit human P450c17 and 3β-hydroxysteroid dehydrogenase and improve insulin sensitivity independent of PPARy agonist activity ΑU Arlt, Weibke; Neogi, Partha; Gross, Coleman; Miller, Walter L. CS Department of Pediatrics and the Metabolic Research Unit, University of California, San Francisco, CA, 94143-0978, USA SO Journal of Molecular Endocrinology (2004), 32(2), 425-436 CODEN: JMLEEI; ISSN: 0952-5041 PB Society for Endocrinology DTJournal ĿΑ English AB Thiazolidinediones improve insulin sensitivity in type 2 diabetes mellitus by acting as peroxisome proliferator-associated receptor gamma (PPARy) agonists, and decrease circulating androgen concns. in polycystic ovary syndrome by unknown mechanisms. Some thiazolidinediones directly inhibit the steroidogenic enzymes P450c17 and 3β-hydroxysteroid dehydrogenase type II (3βHSDII) by distinct mechanisms. We synthesized five novel thiazolidinediones, CLX-M1 to -M5 by linking a 2,4-thiazolidinedione moiety to a substituted α -Ph cinnamic acid previously shown to have glucose-lowering effects. Using yeast microsomes expressing human P450c17 and $3\beta \text{HSDII}$ we found that cinnamic acid Me esters with a double bond

in the thiazolidinedione core structure (M3, M5) were stronger inhibitors of P450c17 than Me esters with the conventional core (M1, M4). These four

compds. inhibited $3\beta HSDII$ equally well, while the free cinnamic acid analog (M2) did not inhibit either enzyme. Thus, the inhibition of

P450c17 and 3βHSDII by these novel thiazolidinediones reveals

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structure-activity relationships independent of PPAR γ transactivation. PPAR γ transactivation was moderate (M1), weak (M2, M3) or even absent (M4, M5). While the PPAR γ agonist activity of M1 was only 3% of that of rosiglitazone, both increased glucose uptake by 3T3-L1 adipocytes and reduced serum glucose levels in ob/ob and db/db mice to a similar extent. The similar glucose-lowering effects of M1 and rosiglitazone, despite their vast differences in PPAR γ agonist activity, suggests these two actions may occur by sep. mechanisms. 380881-51-6

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); BIOL (Biological study)

(cinnamic acid based thiazolidinediones inhibit human P450c17 and 3β -hydroxysteroid dehydrogenase and improve insulin sensitivity independent of PPAR γ agonist activity)

RN 380881-51-6 CAPLUS

Benzenepropanoic acid, α -[4-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenoxy]phenyl]-3,5-dimethoxy-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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2003:757334 CAPLUS
AN
DN
     139:276885
     Preparation of novel heterocyclic analogs of diphenylethylene compounds as
ΤI
     antidiabetics
     Neogi, Partha; Dey, Debendranath; Medicherla, Satyanarayana; Nag,
IN
     Bishwajit; Lee, Arthur
PΑ
     U.S. Pat. Appl. Publ., 66 pp., Cont.-in-part of U.S. Ser. No. 843,167.
SO
     CODEN: USXXCO
     Patent
DT
     English
LΑ
FAN.CNT 9
     PATENT NO.
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     WO 2003-US31803
     MARPAT 139:276885
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- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- The title compds. [I; Z = III-IV; n, m, q and r = 0-4 (n+m ≤ 4 and $q+r \leq 4$); p, s = 0-5 (p+s ≤ 5); R, R2 = H, alkyl, alkenyl, etc.; R1 = H, alkyl, alkenyl, etc.; A, A1, A2 = H, acylamino, acyloxy, alkanoyl, etc.; B, B1, B2 = H, acylamino, acyloxy, alkanoyl, etc.; or A and B together, or A1 and B1 together, or A2 and B2 together, may be joined to form a methylenedioxy or ethylenedioxy; X, X1 = (un)substituted NH, O, S] which are effective in lowering blood glucose level, serum insulin, triglyceride and free fatty acid levels in animal models of Type II diabetes, were prepared E.g., a multi-step synthesis of V, starting from 3,5-dimethoxybenzaldehyde and 4-hydroxyphenylacetic acid, was given. The compound V showed strong glucose lowering activity even though it is a weak

PPAR- γ agonist (data given). The compds. I are disclosed as useful for a variety of treatments including the treatment of inflammation, inflammatory and immunol. diseases, insulin resistance, hyperlipidemia, coronary artery disease, cancer and multiple sclerosis. Pharmaceutical composition comprising the compound I was claimed.

IT 380881-51-6P

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RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or immunol. disease in combination with other agents)

RN 380881-51-6 CAPLUS

Benzenepropanoic acid, $\alpha-[4-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenoxy]phenyl]-3,5-dimethoxy-, methyl ester (9CI) (CA INDEX NAME)$

PAGE 1-A

PAGE 2-A

IT 380881-49-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(preparation of diphenylethylene compds. containing thiazolidinedione or oxazolidinedione moieties for treating diabetes, inflammatory or

CN

immunol. disease in combination with other agents)

RN 380881-49-2 CAPLUS

Benzenepropanoic acid, α -[4-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenoxy]phenyl]-3,5-dimethoxy- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

L3 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:645701 CAPLUS

DN 140:87046

TI Synthesis and structure-Activity relationship studies of cinnamic acid-based novel thiazolidinedione antihyperglycemic agents

AU Neogi, Partha; Lakner, Fredrick J.; Medicherla, Satyanarayana; Cheng, Jin; Dey, Debendranath; Gowri, Maya; Nag, Bishwajit; Sharma, Somesh D.; Pickford, Lesley B.; Gross, Coleman

CS Department of Chemistry, Calyx Therapeutics Inc., Hayward, CA, 94545, USA

SO Bioorganic & Medicinal Chemistry (2003), 11(18), 4059-4067 CODEN: BMECEP; ISSN: 0968-0896

PB Elsevier Science Ltd.

DT Journal

LA English

OS CASREACT 140:87046

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AB A number of 2,4-thiazolidinedione derivs. of -Ph substituted cinnamic acid were synthesized and studied for their PPAR agonist activity. The E-isomer of cinnamic acid, I, showed moderate PPAR transactivation. The corresponding Z-isomer and double bond reduced derivative were found to be much less potent. Although the E-isomer showed a moderate PPARy transactivation, it demonstrated a strong glucose-lowering effect in a genetic rodent model of diabetes. Results of pharmacokinetic, metabolism and permeability studies are consistent with I being an active prodrug with the hydrolyzed carboxylate as an active metabolite that has similar glucose lowering and PPARy agonist properties.

IT 380881-51-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(cinnamic acid-based thiazolidinedione antihyperglycemic agents)

RN 380881-51-6 CAPLUS

CN Benzenepropanoic acid, α -[4-[4-[(2,4-dioxo-5-thiazolidinyl)methyl]phenoxy]phenyl]-3,5-dimethoxy-, methyl ester (9CI) (CA INDEX NAME)

PAGE 2-A

RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:185699 CAPLUS

DN 136:247571

TI Preparation of novel heterocyclic analogs of diphenylethylene compounds as inhibitors of cytokines or cyclooxygenase

IN Nag, Bishwajit; Dey, Debendranath; Medicherla, Satyanarayana; Neogi, Partha

PA USA

SO U.S. Pat. Appl. Publ., 34 pp., Cont.-in-part of U.S. Ser. No. 785,554. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 9

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	US 6245814	B1	20010612	US 1998-74925	19980508
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	WO 2001095859	A2	20011220	WO 2001-US17950	20010605
	WO 2001095859	A3	20030828		

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$$Q = Ap$$

$$Bp1$$

$$R$$

$$R'$$

$$Bq1$$

AB Novel diphenylethylene compds. and derivs. thereof containing thiazolidinedione or oxazolidinedione-moieties are provided which are effective in lowering blcod glucose level, serum insulin, triglyceride and free fatty acid levels in animal models of Type II diabetes. The above compds. and their derivs. are resented by formula [I; Z = Q, Ql, H, A", B"; wherein n, m, q, ql = integers from zero to 4 provided that n+m≤4 and q+ql≤4; p, pl = integers from zero to 5 provided that p+pl≤5; a, b and c are double bonds which may be present or absent; when present; the double bonds may be in the E or Z configuration and, when absent, the resulting stereocenters may have the R- or S-

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configuration; R, R', R" = H, C1-20 linear or branched alkyl, C2-20 linear
or branched alkenyl, CO2Z' (wherein Z' = H, Na, K, or other
pharmaceutically acceptable counterion such as Ca, Mg, ammonium,
tromethamine, and the like), CO2R''', NH2, NHR''', N(R''')2, OH, OR''',
halo, substituted C1-20 linear or branched alkyl or substituted C2-20
linear or branched alkenyl (wherein R''' is C1-20 linear or branched alkyl or linear or branched alkenyl); A, A', A'' = H, C1-20 acylamino, C1-20
acyloxy, C1-20 alkanoyl, C1-20 alkoxycarbonyl, C1-20 alkoxy, C1-20
alkylamino, C1-20 alkylcarboxylamino, CO2H, cyano, halo, HO; B, B', B'' =
H, C1-20 acylamino, C1-20 acyloxy, C1-20 alkanoyl, C1-20 alkenoyl, C1-20
alkoxycarbonyl, C1-20 alkoxy, C1-20 alkylamino, C1-20 alkylcarboxylamino,
aroyl, aralkanoyl, CO2H, cyano, halo, HO; or A and B together, or A' and
B' together, or A'' and B'' together, may be joined to form a
methylenedioxy or ethylenedioxy group; and X, X' are independently -NH,
-NR''', O or S]. In contrast to previously reported thiazolidinedione
compds., known to lower leptin levels, the present compds. increase leptin
levels and have no known liver toxicity. They inhibit the activity of
TNF-alpha, interleukin IL-1 or IL-6 or cyclooxygenase-2 (COX-2). The
compds. are disclosed as useful for a variety of treatments including the
treatment of inflammation, inflammatory and immunol. diseases, insulin
resistance, hyperlipidemia, coronary artery disease, cancer and multiple
sclerosis. Thus, To a mixture of 3,5-dimethoxybenzaldehyde (500 g) and
p-hydroxyphenylacetic acid (457 g) was added acetic anhydride (1 L) and
triethylamine (420 mL) and the nonhomogeneous mixture on heating became
homogeneous at 70° and stirred at 130-140° for 6 h to give
47% 3-(3,5-dimethoxyphenyl)-2-(4-hydroxyphenyl)acrylic acid (II) (428 g).
II (427.5 g) was suspended in 3 L methanol, treated with 100 mL concentrated
H2SO4, and heated at reflux for 20 h under Ar to give 97%
3-(3,5-dimethoxyphenyl)-2-(4-hydroxyphenyl)acrylic acid Me ester (III).
III (433 q) was dissolved in 1.6 L DMF, treated with 60.4 g NaH (50% in
oil) and the with 185 mL p-fluorobenzaldehyde, and heated at 180°
for 18 h to give 77% 3-(3,5-dimethoxyphenyl)-2-[4-(4-
formylphenoxy)phenyl]acrylic acid Me ester which (352 g),
2,4-thiazolidinedione 98.6, benzoic acid 134, and piperidine 107.4 g were
heated in 2.5 L toluene at reflux with continuous removal of H2O through
Dean-Stark apparatus to give 86% 3-(3,5-dimethoxyphenyl)-2-[4-[4-(2,4-
dioxothiazolidin-5-ylidememethyl)phenoxy]phenyl]acrylic acid Me ester
(IV). IV (30 g) was hydrogenated over 15 g 10% Pd-C in 900 mL dioxane in
a Parr apparatus at 60 Psi for 24 h, followed by adding 15 g 10% Pd-C and
continuing the hydrogenation for another 24 h to give 86%
3-(3,5-dimethoxyphenyl)-2-[4-[4-(2,4-dioxothiazolidin-5-
ylmethyl)phenoxy]phenyl]acrylic acid Me ester (V). When V was orally
administered to ob/ob mic- with a single oral dose (50 mg/kg body weight),
there was a 62 % drop in cloud glucose level and, similar to db/db mice,
there was no significant increase in body weight between the control and the
treatment groups. This was in contrast to treatment of diabetic animals
by thiazolidinedione type compds, which are known to be associated with
increase in body weight
380881-49-2P, 3-(3,5-Dimethoxyphenyl)-2-[4-[4-(2,4-
dioxothiazolidin-5-ylmethyl)phenoxy]phenyl]propionic acid
380881-51-6P, 3-(3,5-Dimethoxyphenyl)-2-[4-[4-(2,4-
dioxothiazolidin-5-ylmethyl)phenexy]phenyl]propionic acid methyl ester
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Riological study); PREP (Preparation); USES
    preparation of novel heterocyclic analogs of phenylethylene compds. as
   inhibitors of cytokin s or cyclooxygenase for therapeutic agents)
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this coliding() m chyl]ph noxy[phenyl]-3,5-dimethoxy- (9CI) (CA INDEX NAME)

PAGE 2-A

RN 380881-51-6 CAPLUS

CN Bendenepropanoic acid, α -[4-[4-[(2,4-dioxo-5-thi-zolidinyl)methyl]phenoxy]phenyl]-3,5-dimethoxy-, methyl ester (9CI)

(CA INDEX NAME)

PAGE 2-A

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ANSWER 5 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
L3
    2001:923567 CAPLUS
AN
DN
    136:37596
    Preparation and activity of diphenylethylene thiazolidinedione or
ΤI
    oxazolidinedione compounds as antidiabetics or antiinflammatories
IN
    Neogi, Partha; Nag, Bishwajit; Medicherla, Satyanarayana; Dey,
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    Calyx Therapeutics, Inc., USA
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AB Novel diphenylethylene compds. and derivs. thereof containing thiazolidinedione or oxazolidinedione moieties are provided which are effective in lowering blood glucose level, serum insulin, triglyceride and free fatty acid levels in animal models of Type II diabetes. In contrast to previously reported this zolidinedione compds., known to lower leptin levels, the present compds. increase leptin levels and have no known liver toxicity. Thus, (I) was prepared in five steps by condensation of 3,5-dimethoxybenzaldehyde with 4-hydroxyphenylacetic acid followed by esterification and etherification with 4-fluorobenzaldehyde and condensation with 2,4-thiazolidinedione and hydrogenation of the ylidene double bond. Oral administration of I to obese mice caused a 62% drop in blood glucose level. The compds, are disclosed as useful for a variety of treatments including the treatment of inflammation, inflammatory and immunol, diseases, insulin resistance, hyperlipidemia, coronary artery discuse, cancer and multiple sclerosis.

IT 380881-49-2P 380-31-51-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

· .

CN

(preparation and activity of diphenylethylene thiazolidinedione or oxacolidinediche compus. as antidiabetics or antiinflammatories)

RN 380831-49-2 CAPIUS

PAGE 1-A

PAGE 2-A

RN 380881-51-6 CAPLUS

CN Benzenepropanoic cid, α-[4-[4-[(2,4-dioxo-5-thiazolidinyl)mem.yl]phenoxy]phenyl]-3,5-dimethoxy-, methyl ester (9CI) (CA INDEX NAME)

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   28-31
normalized bonds :
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